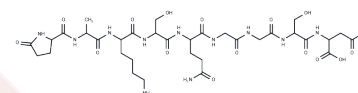


Thymulin

Chemical Properties

| | |
|-------------------|---|
| CAS No. : | 63958-90-7 |
| Formula: | C33H54N12O15 |
| Molecular Weight: | 858.85 |
| Storage: | Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small> |



Biological Description

| | |
|---------------|---|
| Description | Thymulin is a peptide hormone which is mainly produced by thymic epithelial cells and it has immune-modulatory and anti-inflammatory effects |
| Targets(IC50) | ERK,Immunology/Inflammation related |
| In vitro | The effects of different doses and various timings of thymulin intraperitoneal administration on spinal microglial activity and intracellular pathways in an inflammatory rat model of Complete Freund's adjuvant (CFA).?Thymulin treatment was implemented following CFA-induced inflammation for 21 days.?After conducting behavioral tests (edema and hyperalgesia), the cellular and molecular aspects were examined to detect the thymulin effect on inflammatory factors and microglial activity.? Demonstrated that thymulin treatment notably reduced thermal hyperalgesia and paw edema induced by CFA.?Furthermore, molecular investigations showed that thymulin reduced CFA-induced activation of microglia cells, phosphorylation of p38 MAPK and the production of spinal pro-inflammatory cytokines (TNF- α , IL-6) during the study.? Results suggest that thymulin treatment attenuates CFA-induced inflammation.?This effect may be mediated by inhibition of spinal microglia and production of central inflammatory mediators which seems to be associated with the ability of thymulin to reduce p38 MAPK phosphorylation.?These data provide evidence of the anti-hyperalgesic effect of thymulin on inflammatory pain and characterize some of the underlying spinal mechanisms[1]. |

Solubility Information

| | |
|------------|--|
| Solubility | H2O: 10 mM,Sonication is recommended. DMSO: Insoluble, (< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|--|

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|-------|------------|------------|-------------|
| 1 mM | 1.1643 mL | 5.8217 mL | 11.6435 mL |
| 5 mM | 0.2329 mL | 1.1643 mL | 2.3287 mL |
| 10 mM | 0.1164 mL | 0.5822 mL | 1.1643 mL |
| 50 mM | 0.0233 mL | 0.1164 mL | 0.2329 mL |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Goya RG, et al. Thymulin and the neuroendocrine system. Peptides. 2004 Jan;25(1):139-42.

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